DVB-T Mobile Receiver

Manual

1. KEY FEATURES

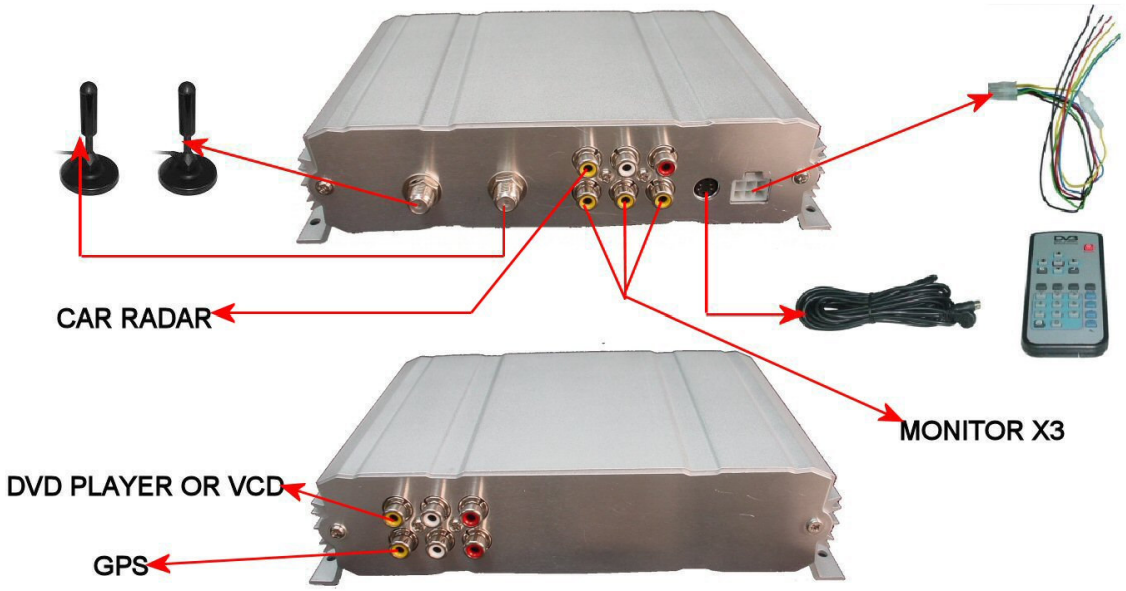
__**Fan-less design & Aluminum casing** --- High performance thermal solution for stable working.
__**Enhanced antenna design** ---Signal amplifying circuit for better receiving quality
__**More input for multiple connecting**--- DVD, GPS, Car-radar…
__**User friendly OSD**---easy to set your preference and find information.

2. CONTENT

2-1.	**RECEIVER**	
2-2.	**ANTENNAS**	
2-3.	**REMOTE CONTROLLER**	
2-4.	**POWER CABLE**	
2-5.	**IR CABLE**	

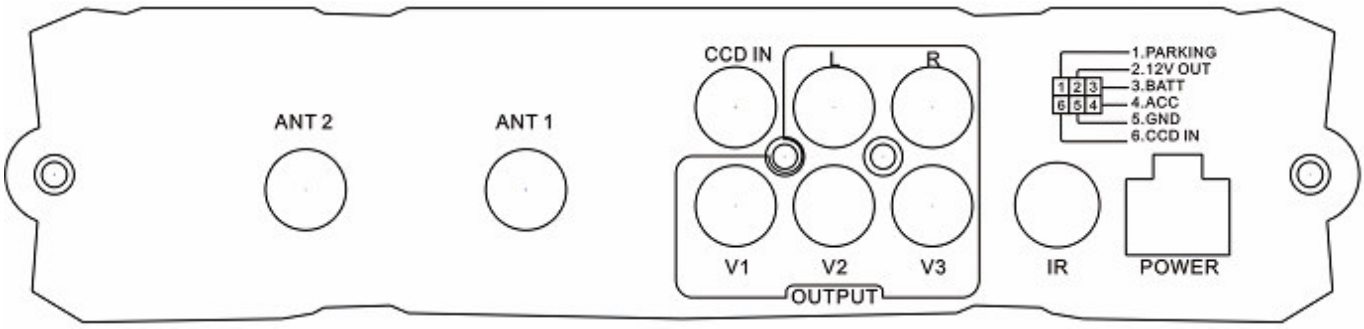
3. HARDWARE INSTALLATION

3-1. EASY INSTALLATION GUIDE



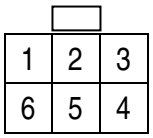
3-2. INPUT/OUTPUT PORTS

3-2-1. Back Panel

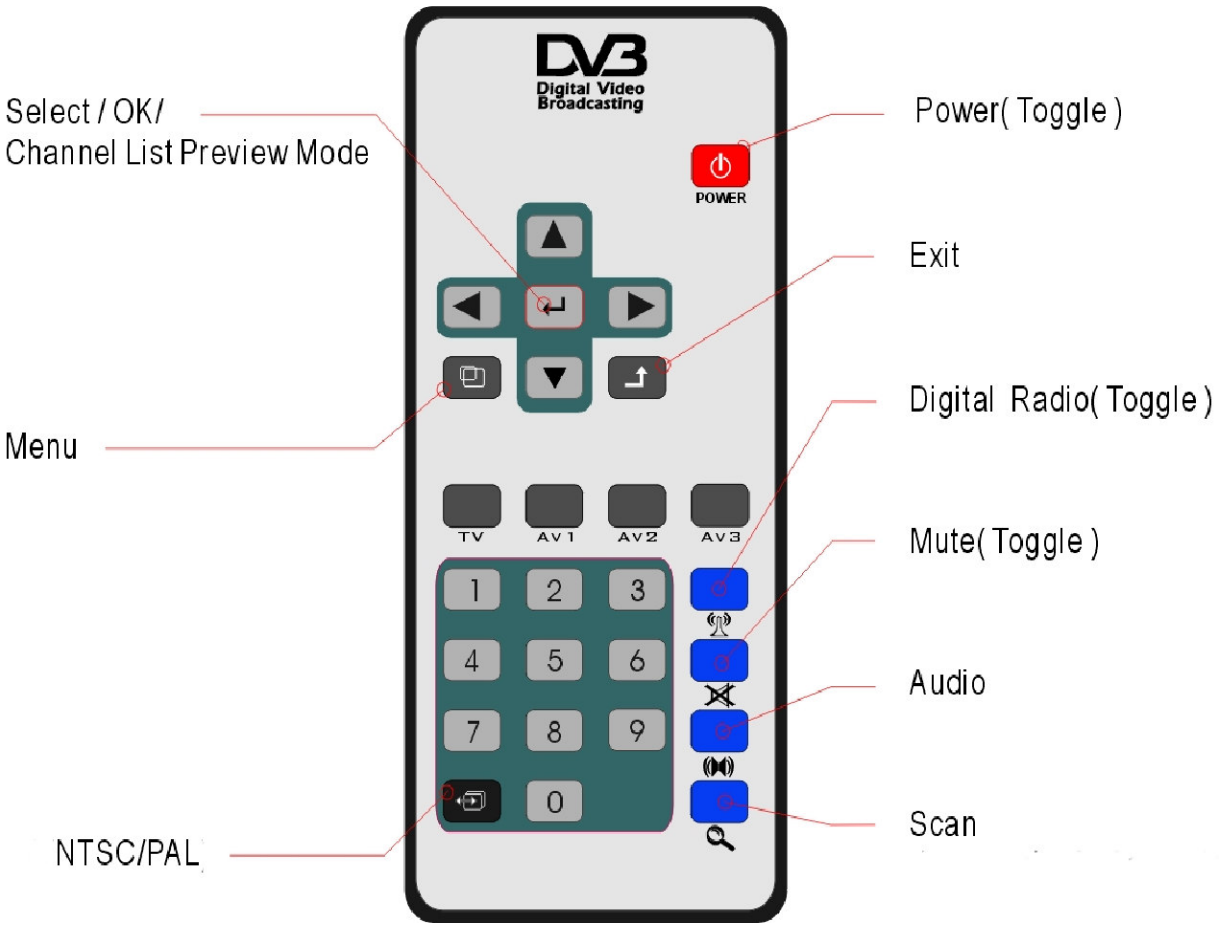


3-2-2. Front Panel

3-3. POWER PORT DESCRIPTION

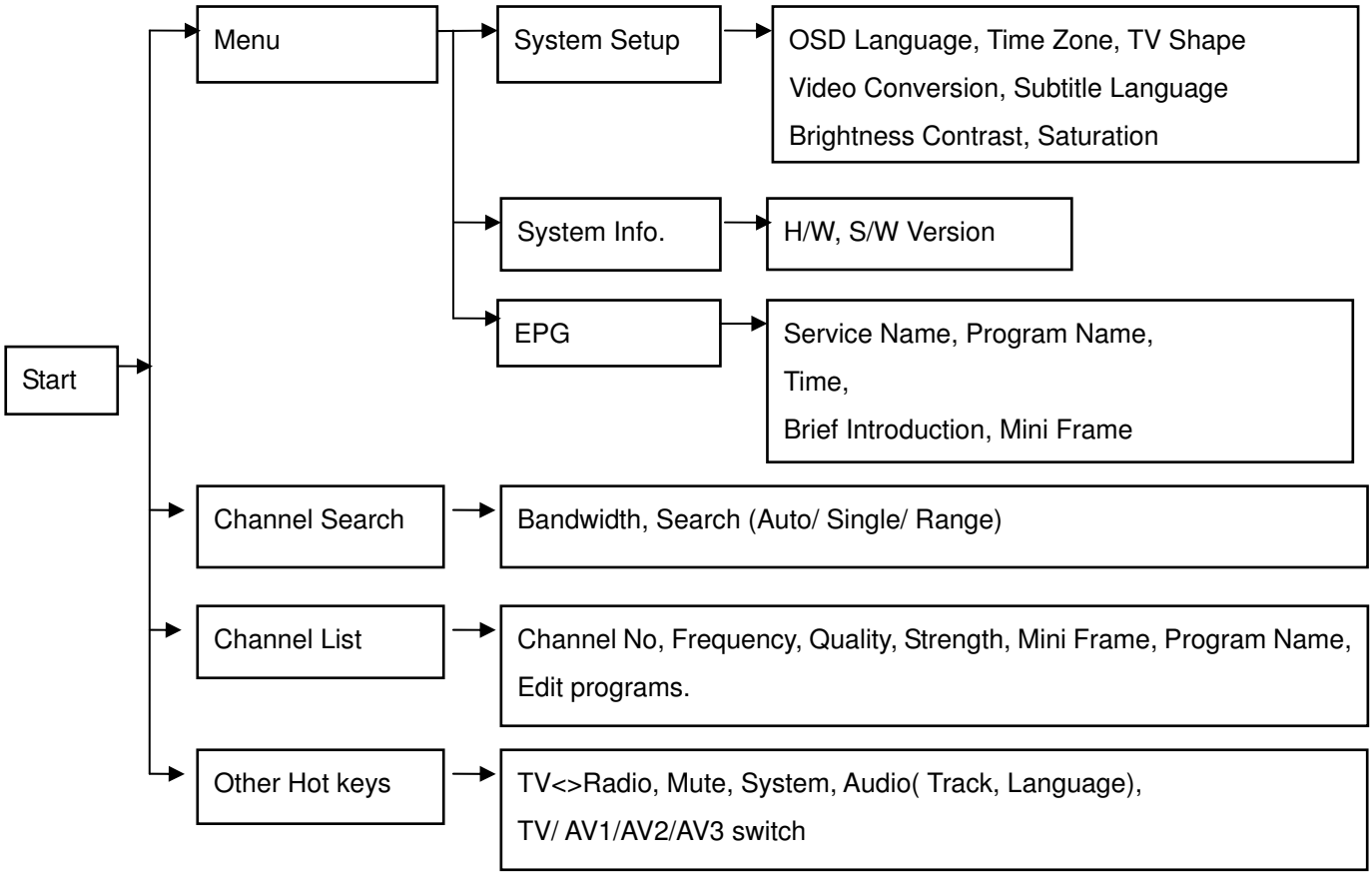
Power Connect	Description
	1--GREEN--hands breaks device----connect to the hands break device or "ground". 2--BLUE--12V/150mA switch power output switched by the power button on remote controller. When the TV power is on (the light of IR cable is on), 12V output is on When the TV power is off (the light of IR cable is off), 12V output is off. When switching to AV1 和 AV2, TV power is off / 12V output is on When switching to AV3 (CCD) , TV power is off / 12V output is off 3--YELLOW-- Car Battery 4--RED-- ACC 5--BLACK-- Ground 6--ORANGE--CCD In

3-4. REMOTE CONTROLLER KEY FUNCTION



BUTTON	FUNCTION	DESCRIPTION
-1--	1) Program List 2) Select/ OK	1) When there's no OSD frame, press to enter "Program List". 2) When there's a OSD frame, press to select and execute the function.
-2-	Menu	Press to enter "system setup", "system info", "EPG"
-3-	System	Toggle key to switch NTSC/PAL system.
-4-	Power	Toggle key to switch power ON/OFF
-5-	Return(Exit)	Press to return previous frame and save your modification.
-6-	Digital Radio broadcasting	Toggle key to switch digital TV/ RADIO broadcast.
-7-	Mute	Toggle key to switch MUTE/ UNMUTE.
-8-	Audio System	Press to select the audio language and mono/ stereo provided by the broadcasters.
-9-	Program Scan	Press to enter program scan setup.
-10- ▲ ▼	Up/ Down	1) When there's no OSD frame, press to change the channel. 2) When there's a OSD frame, press to select the function.
-11- ◄ ►	Left/ Right	1) When there's no OSD frame, press to change the volume. 2) When there's a OSD frame, press to select the function.
-12-	TV/AV1/AV2/AV3	Press to select the input resources. TV- Digital TV, AV1/2/3 input by users
-13-	0-9 number keys	When there's no OSD frame, press the programs' numbers shown in the "Channel List " to see the TV program.

3-5. OSD STRUCTURE

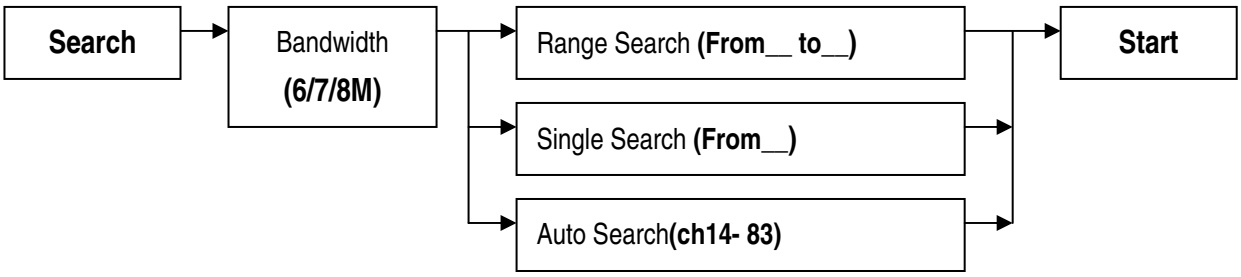


4. CHANNEL SEARCH

Firstly, please make sure there is digital TV program signal broadcasted, and then press **Channel Search** , to enter “channel search mode”.

The programs searched would be listed in the channel list. The new programs searched in the later scan actions would be added in the channel list, and the old ones would NOT be deleted. If need to delete the programs, refer to “5-2” program delete. If move to another country where the programs are totally different, better to delete ALL old programs and the do the Channel Search.

4-1. CHANNEL SEARCH MODE (Bandwidth, Search type, Channel No.)



4-1-1. Bandwidth: Usually 8M in Europe/ China/ Russia…, 7M in Australia.

4-1-2. Search Type: 3 search methods including “Range/ Single/ Auto “search.

ITEM	SEARCH	DESCRIPTION
1	Range search	The channel numbers need to input (maximum range VHF-H to UHF) from 8M---“5 to 69”, 7M---“6 to 69”, 6M---“7 to 83”
2	Single search	Search by input single channel number or channel frequency (KHz).
3	Auto search	Search VHF-H to UHF channels (8M---“5 to 69”, 7M---“6 to 69”, 6M---“7 to 83”). Normally It would take 2-3 minutes.

4-1-3. Start searching

4-2. EUROPE & CHINA CHANNEL / FREQUENCY TABLE

4-2-1 8M Europe Channel Frequency

EUROPE (C.C.I.R) Channel — **TV Frequency Table**

(VIF:38.9MHz , SIF:33.4MHz) (UNIT: MHz)

CH	Frequency Range	Picture fp	Sound fs	Oscillation f osc	CH	Frequency Range	Picture fp	Sound fs	Oscillation f osc
2	47-54	48.25	53.75	87.15	40	622-630	623.25	628.75	662.15
3	54-61	55.25	60.75	94.15	41	630-638	631.25	636.75	670.15
4	61-68	62.25	67.75	101.15	42	638-646	639.25	644.75	678.15
5	174-181	175.25	180.75	214.15	43	646-654	647.25	652.75	686.15
6	181-188	182.25	187.75	221.15	44	654-662	655.25	660.75	694.15
7	188-195	189.25	194.75	228.15	45	662-670	663.25	668.75	702.15
8	195-202	196.25	201.75	235.15	46	670-678	671.25	676.75	710.15
9	202-209	203.25	208.75	242.15	47	678-686	679.25	684.75	718.15
10	209-216	210.25	215.75	249.15	48	686-694	687.25	692.75	726.15
11	216-223	217.25	222.75	256.15	49	694-702	695.25	700.75	734.15
12	223-230	224.25	229.75	263.15	50	702-710	703.25	708.75	742.15
21	470-478	471.25	476.75	510.15	51	710-718	711.25	716.75	750.15
22	478-486	479.25	484.75	518.15	52	718-726	719.25	724.75	758.15
23	486-494	487.25	492.75	526.15	53	726-734	727.25	732.75	766.15
24	494-502	495.25	500.75	534.15	54	734-742	735.25	740.75	774.15
25	502-510	503.25	508.75	542.15	55	742-750	743.25	748.75	782.15
26	510-518	511.25	516.75	550.15	56	750-758	751.25	756.75	790.15
27	518-526	519.25	524.75	558.15	57	758-766	759.25	764.75	798.15
28	526-534	527.25	532.75	566.15	58	766-774	767.25	722.75	806.15
29	534-542	535.25	540.75	574.15	59	774-782	775.25	780.75	814.15
30	542-550	543.25	548.75	582.15	60	782-790	783.25	788.75	822.15
31	550-558	551.25	556.75	590.15	61	790-798	791.25	796.75	830.15
32	558-566	559.25	564.75	598.15	62	798-806	799.25	804.75	838.15
33	566-574	567.25	572.75	606.15	63	806-814	807.25	812.75	846.15
34	574-582	575.25	580.75	614.15	64	814-822	815.25	820.75	854.15
35	582-590	583.25	588.75	622.15	65	822-830	823.25	828.75	862.15
36	590-598	591.25	596.75	630.15	66	830-838	831.25	836.75	870.15
37	598-606	599.25	604.75	638.15	67	838-846	839.25	844.75	878.15
38	606-614	607.25	612.75	646.15	68	846-854	847.25	852.75	886.15
39	614-622	615.25	620.75	654.15	69	854-862	855.25	860.75	894.15

Version : 1.0

4-2-1 7M Australia Channel Frequency

Australia Channel — TV Frequency Table

(VIF36.875MHz, SIF31.375MHz) (Unit:MHz)

Ch	Frequency Range	Picture fp	Sound fs	Oscillation fosc	Ch	Frequency Range	Picture fp	Sound fs	Oscillation fosc
0	45-52	46.25	51.75	83.125	42	624-631	625.25	630.75	662.125
1	56-63	57.25	62.75	94.125	43	631-638	632.25	637.75	669.125
2	63-70	64.25	69.75	101.125	44	638-645	639.25	644.75	676.125
3	85-92	86.25	91.75	123.125	45	645-652	646.25	651.75	683.125
4	94-101	95.25	100.75	132.125	46	652-659	653.25	658.75	690.125
5	101-108	102.25	107.75	139.125	47	659-666	660.25	665.75	697.125
5A	137-144	138.25	143.75	175.125	48	666-673	667.25	672.75	704.125
6	174-181	175.25	180.75	212.125	49	673-680	674.25	679.75	711.125
7	181-188	182.25	187.75	219.125	50	680-687	681.25	686.75	718.125
8	188-195	189.25	194.75	226.125	51	687-694	688.25	693.75	725.125
9	195-202	196.25	201.75	233.125	52	694-701	695.25	700.75	732.125
9A	202-209	203.25	208.75	240.125	53	701-708	702.25	707.75	739.125
10	208-215	210.25	215.75	247.125	54	708-715	709.25	714.75	746.125
11	216-223	217.25	222.75	254.125	55	715-722	716.25	721.75	753.125
12	223-230	224.25	229.75	261.125	56	722-729	723.25	728.75	760.125
28	526-533	527.25	532.75	561.125	57	729-736	730.25	735.75	767.125
29	533-540	534.25	539.75	571.125	58	736-743	737.25	742.75	774.125
30	540-547	541.25	546.75	578.125	59	743-750	744.25	749.75	781.125
31	547-554	548.25	553.75	585.125	60	750-757	751.25	756.75	788.125
32	554-561	555.25	560.75	592.125	61	757-764	758.25	763.75	795.125
33	561-568	562.25	567.75	599.125	62	764-771	765.25	770.75	802.125
34	568-575	569.25	574.75	606.125	63	771-778	772.25	777.75	809.125
35	575-582	576.25	581.75	613.125	64	778-785	779.25	784.75	816.125
36	582-589	583.25	588.75	620.125	65	785-792	786.25	791.75	823.125
37	589-596	590.25	595.75	627.125	66	792-799	793.25	798.75	830.125
38	596-603	597.25	602.75	634.125	67	799-806	800.25	805.75	837.125
39	603-610	604.25	609.75	641.125	68	806-813	807.25	812.75	844.125
40	610-617	611.25	616.75	648.125	69	813-820	814.25	819.75	851.125
41	617-624	618.25	623.75	655.125					

5. CHANNEL LIST

After program scanning, you'll see the first frequency TV program shown on the screen.

When there's no OSD frame, press **Select/OK** to enter "Channel List".

5-1. CHANNEL LIST CONTENT

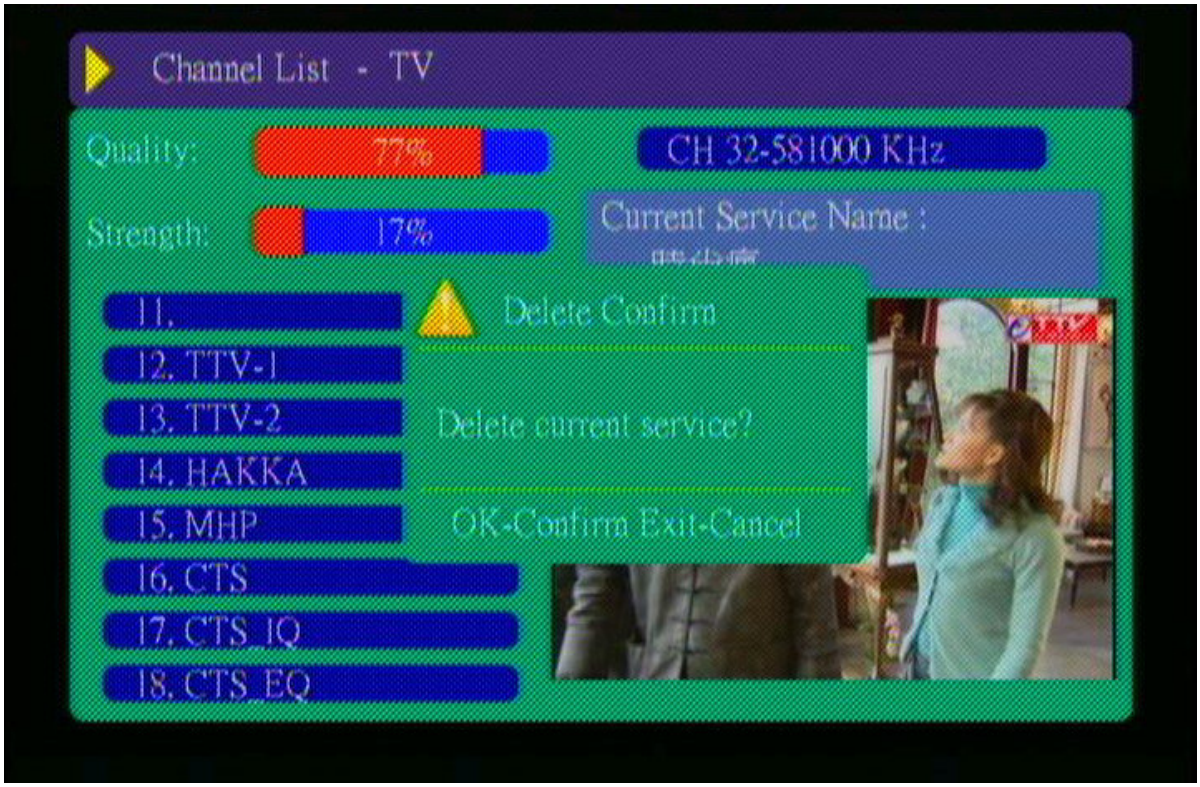
5-1-1. The info. in Channel List Content including (as OSD frame above)

ITEM	CONTENT	DESCRIPTION
1	Quality of Signal	74%
2	Strength of Signal	36%
3	Channel Number & Frequency	Ch34 and 593000KHz (593MHz)
4	TV station	"TTV1" …… "CTS_EQ"
5	COFDM Parameters	FFT : 2K/8K Guard Interval : 1/4,1/8,1/16,1/32 Constellation & Hierarchy : QPSK, 16QAM, 64QAM FEC & Priority : 1/2, 2/3, 3/4, 5/6, 7/8, High/Low Priority

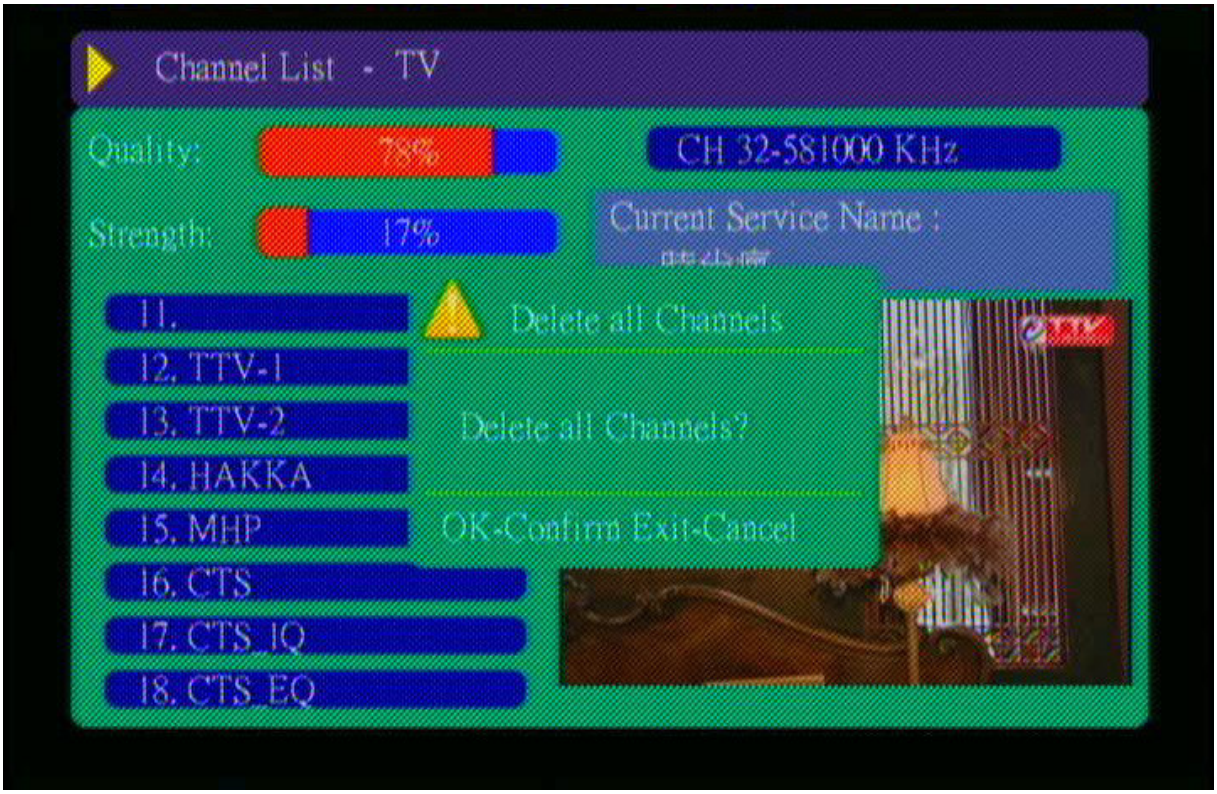
5-1-2. Press ▲, ▼ to see different channel program.

5-2. PROGRAM DELETE

5-2-1. Delete current service: move the icon to the program, and press number key [1] , and press **Select/OK** to execute; or press **Return** to cancel.



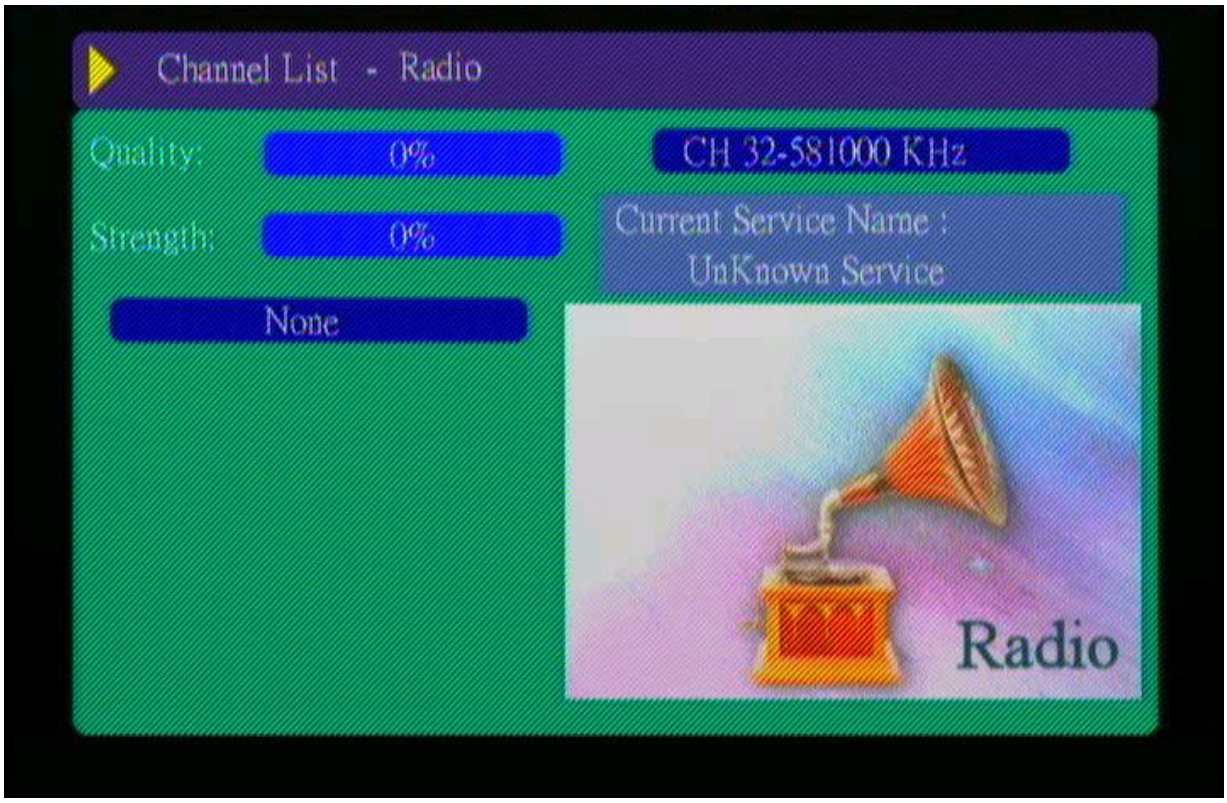
5-2-2. Delete all channels: In the “program list ” frame, press number key [0] , and press **Select/OK** to execute ; or press **Return** to cancel.



6. OTHER FUNCTION FRAMESDESCRIPTION

6-1. FUNCTION KEYS

6-1-1. Digital Radio Broadcast---



6-1-2. Mute---.

6-1-3. **Audio System**--

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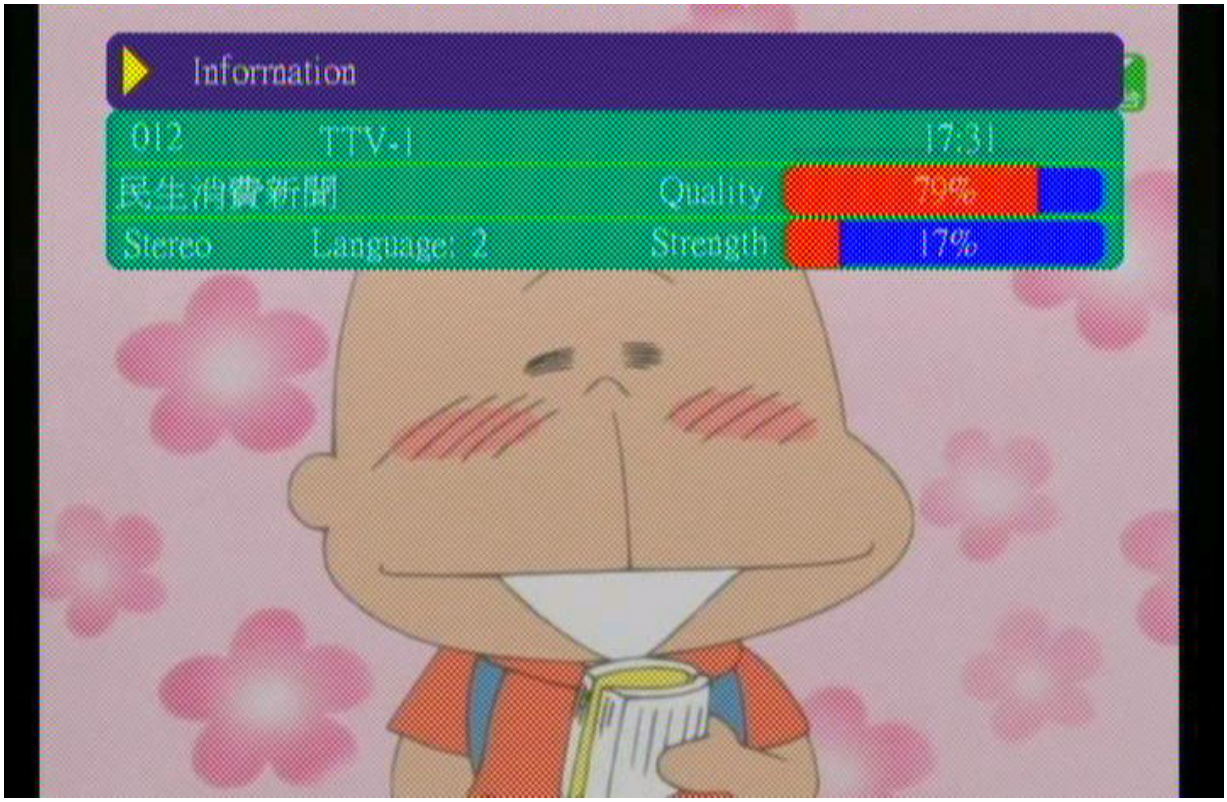
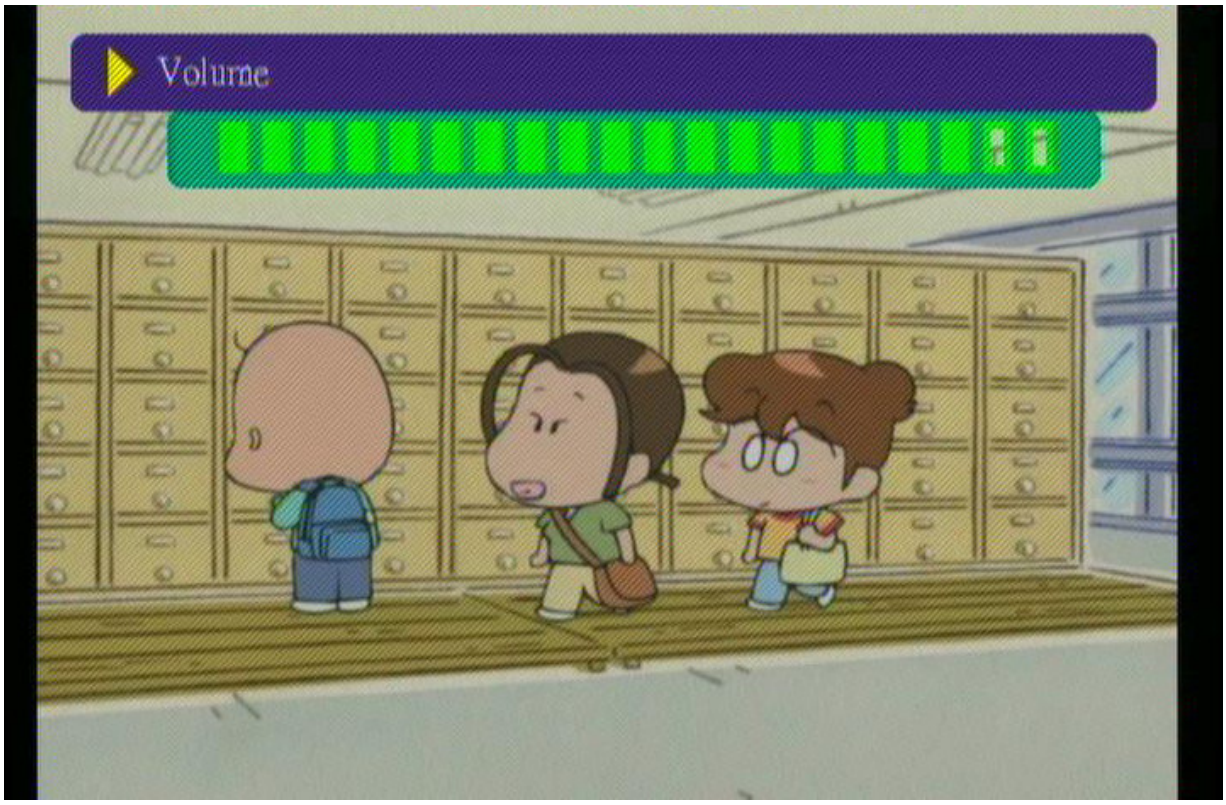
6-2. NUMBER & DIRECTION KEYS

6-2-1. When there's no OSD frame, press ▲ ▼ or enter channel No. to change the channel and see the program's info.

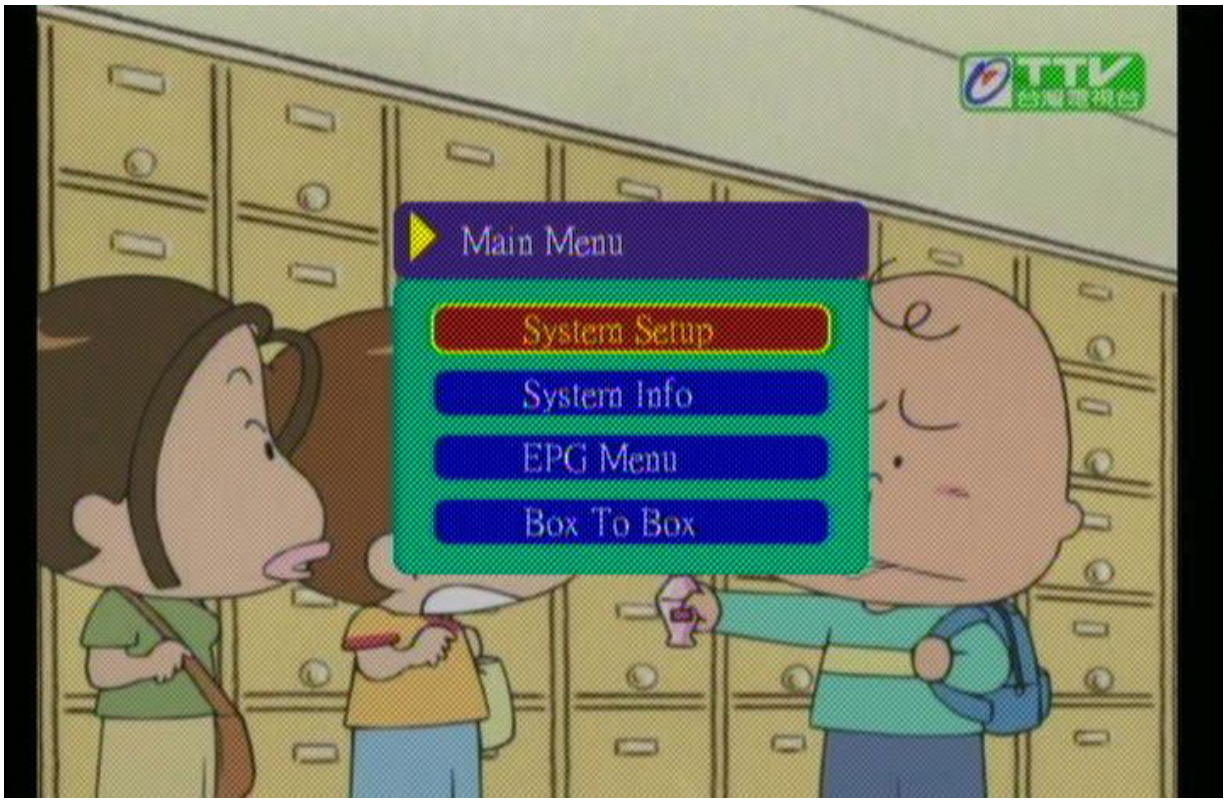


6-2-2. When there's no OSD frame, press ◀, ▶ to adjust the volume.



7. MENU

Press **Menu** to enter "System Setup", "System Info", "EPG"



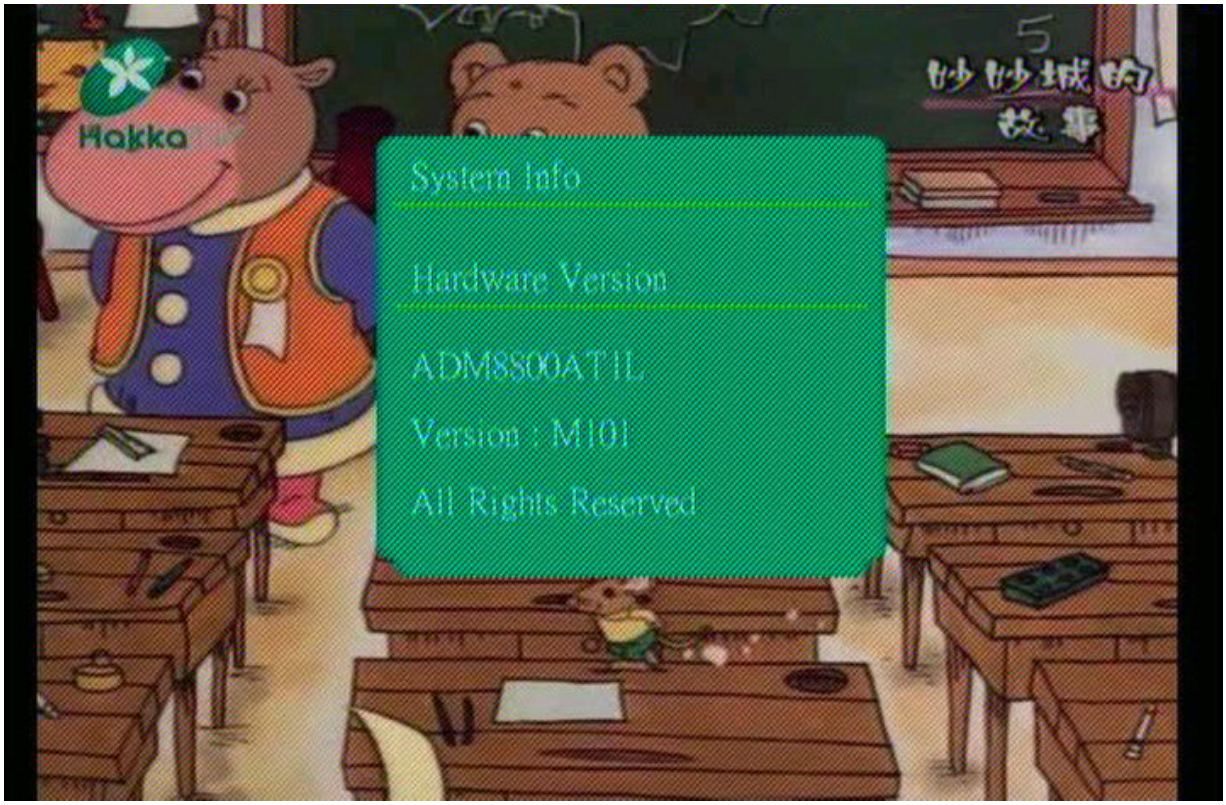
7-1. SYSTEM SETUP

ITEM	CONTENT	DESCRIPTION
1	Menu Language	setup the OSD language according to customers' need.
2	Time Zone	setup the Time Zone from ***+12 ~ -12*** (25 items).
3	TV Shape	setup the Television display ratio for ***4:3*** or ***16:9***.
4	Video Conversion	setup for IRD video output frame size.(This item will auto change according to TV Shape setup and downlink bit stream shape) setup to 16:9. --- ***Pillar box***, ***Vertical cut***, ***Full Frame*** , ***Auto***. setup to 4:3 . --- ***Letter box***, ***Pan & Scan***, ***Full Frame***, ***Auto***.
5	Subtitle Language	setup the default subtitle output language : ***Off*** , ***English***, ***Chinese***, ***French***, ***Spanish***, ***Germany***, ***Italian***, ***Portuguese***, ***Russian***, ***Arbaic***, ***Turkish.*** The subtitle language of downlink bitstream must be match the user select language then IRD will output the subtitle.
6	Bright & Contrast	setup video ouput brightness and contrast combination. 10 grades for adjustment from ***0% ~ 100%***, record by database.
7	"Saturation	setup video output saturation. 100 grades for adjustment from **0% ~ 100%**.

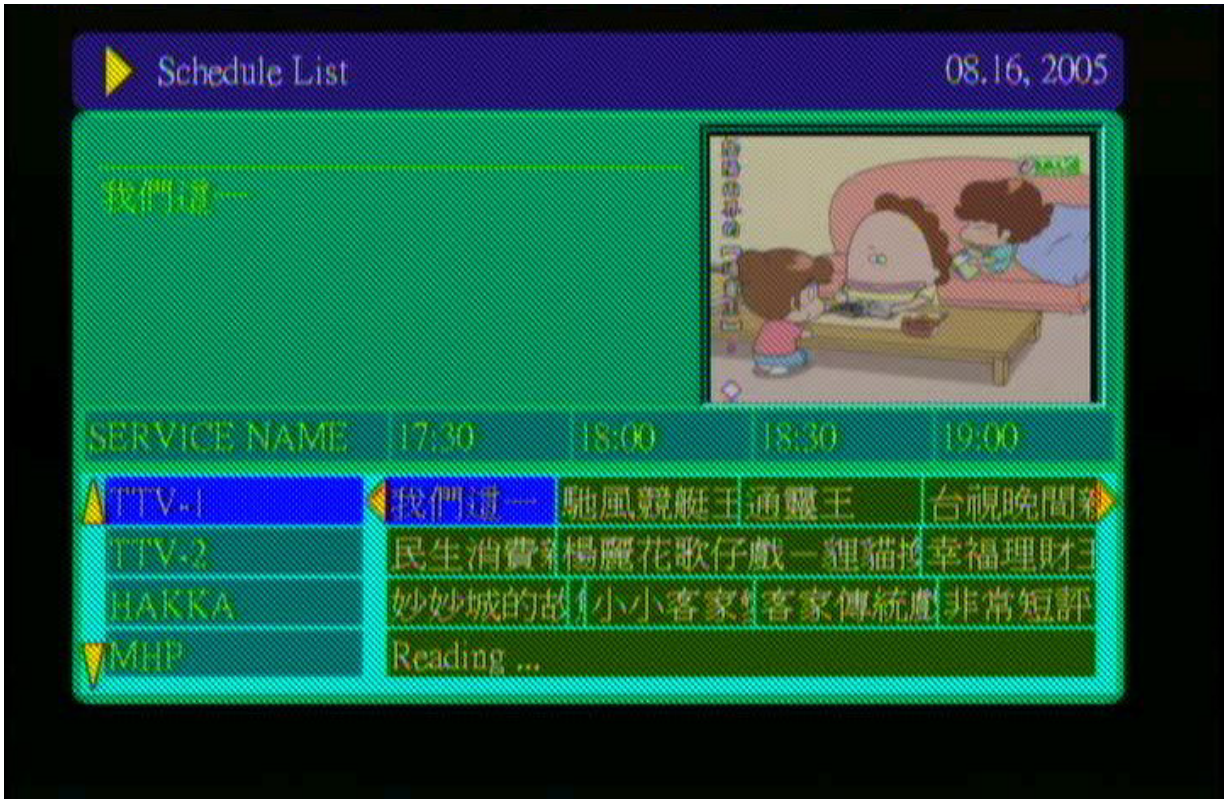
7-2. SYSTEM INFO

7-2-1. Software Version.

7-2-2. Hardware Version.

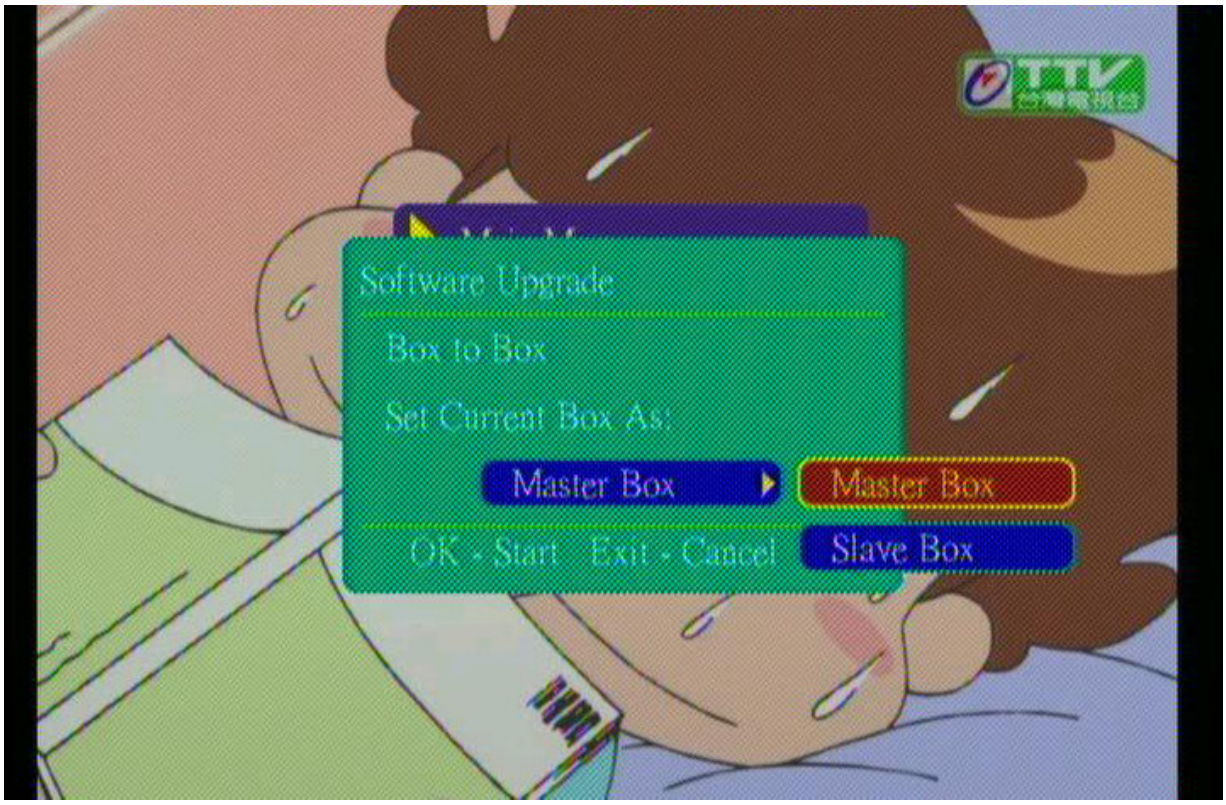


7-3. EPG



To see preview frames, TV station, program names, program info, and playbill.

7-4. Box to Box software transfer



To use the “Box to Box software transfer”，we can only transfer the software from Master receiver to Slave receiver，we cannot transfer the channel database. User can not interrupt this process. The receiver will be damaged after users interrupt this process.

8. MESSAGES AND FAQ.

8-1. MESSAGES

ITEM	MESSAGE	DESCRIPTION
1	No Signal	TV signals are not locked by tuners.
2	No Service	TV signals are locked but no video can be decoded for output.
3	Searching	6 seconds after no TV signal is locked by tuners.

8-2. FAQ.

ITEM	PROBLEM	DESCRIPTION
1	Could hear the audio but the frame stay in “Start up Screen”	Green line is not connected to the hands break device or ”ground”.
2	Could NOT see and hear programs	1) No signal 2) Maybe switch to Digital Radio, could press again to switch back to Digital TV.
3	The frames turn to black	The output signal and the monitor NTSC/PAL system are not matched. Press .
4	The remote controller doesn’t work	Please check the IR cable and remote controller.
5	Keep doing the same action	Please check if the buttons get stuck.